



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW307A BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 8PW090 PRESSURE RATIO (π_{00}): 20.2
 COMBUSTOR: TALON II
 ENGINE TYPE: MTF RATED THRUST (F_{00}) (kN): 28.5

REGULATORY DATA **** DATA SUPERSEDED ** SEE FOLLOWING UID FOR REVISED DATA: 16PW114**

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	14.6	92.2	44.3	2.1
AS % OF ORIGINAL LIMIT	74.5	78.1	55.1	6.3
AS % OF CAEP/2 LIMIT (NO _x)			68.9	
AS % OF CAEP/4 LIMIT (NO _x)			69.3	
AS % OF CAEP/6 LIMIT (NO _x)			69.5	
AS % OF CAEP/8 LIMIT (NO _x)			73.3	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.328	0.00	0.44	19.11	1.2
CLIMB OUT	85	2.2	0.273	0.00	0.48	16.47	0.8
APPROACH	30	4.0	0.102	0.00	1.63	8.03	0.1
IDLE	7	26.0	0.045	5.13	33.99	2.00	1.9
LTO TOTAL FUEL (kg) or EMISSIONS (g)			144	357	2428	1193	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				12.5	85.3	41.9	1.9
SIGMA (D _p /F ₀₀ in g/kN, or SN)				3.6	9.9	1.6	0.2
RANGE (D _p /F ₀₀ in g/kN, or SN)				8.8-17.4	76.9-99.1	40.4-44.1	1.5-2.1

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.4-100.8
TEMPERATURE (K)	264-275
ABS HUMIDITY (kg/kg)	0.0018-0.0046

FUEL

SPEC	Jet A-1
H/C	1.85-1.87
AROM (%)	20.8-22.6

MANUFACTURER: Pratt & Whitney Canada
 TEST ORGANIZATION: PW307 Development Engineering
 TEST LOCATION: Mississauga, Ontario, Canada
 TEST DATES: 30/12/2004-25/01/2005

REMARKS

1. P&WC ER 5597
2. Engines tested: CH0004/02, CH0005/01, CH0007/03
3. Type-Certification combustor

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)